North Carolina A&T State University

Facilities Profile and 10-Year Capital Plan

December 1999



Edward B. Fort Interdisciplinary Research Center

PREFACE

Purpose

In 1997 and 1998, the North Carolina General Assembly mandated that the Board of Governors of The University of North Carolina conduct a *Study of Capital Equity and Adequacy* and prepare a 10-Year Capital Plan—to identify capital needs of each institution for all categories of facilities.

This Facilities Profile and Capital Plan for North Carolina A&T State University is one of 16 individual reports prepared from data developed in the Study. Its purpose is to summarize, in one place, all facilities-related information and capital needs for NC A&T State, from:

- Existing statistical data about the institution's mission, campus population, and campus facilities
- Campus Visit interviews and tours
- Compilation of 10-Year Capital Plan needs, based on the technical analyses conducted for the Study
- > Organization of "Phase I" (years 1-5) with a schedule of projects proposed for state funding and with a *Matrix of Financing Responsibility*, for all financing sources.

Organization of Contents

This *Profile* report is organized into five sections, as follows:

- Executive Summary provides key statistics on the institution and its
 facilities and summary numbers from its Capital Plan. It includes a
 table summarizing 10-Year Capital Plan needs and a preliminary Matrix of
 Financing Responsibility.
- 2. Facilities Profile provides an overview of the institution and a discussion of its facilities issues, based on analyses of the Capital Equity/Adequacy Study
- 3. **10-Year Capital Needs** provides a detailed list of all capital needs identified in the *Study*. It also includes a table of proposed state funding for Phase I.
- 4. **Campus Visit and Tour** summarizes opinions of campus personnel from *Campus Visit* interviews and documents the campus tour, including photographs.
- 5. Other Data Exhibits provide additional reference data.

UNC 10-Year Capital Plan Overview

A separate companion document provides a summary of background and findings of the *Study*, the entire 10-Year Capital Plan summary, and an important Glossary of abbreviations, terminology, and study methods. The Glossary is an important reference, as there are many terms used, but not explained, in the *Profile*.

Eva Klein & Associates, Ltd. December 1999

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EXECUTIVE SUMMARY

Overview

NC A&T State is in many ways a remarkable institution, with few peers among HBUs nationally.

North Carolina Agricultural and Technical State University, (NC A&T State), was founded as an "1890 land-grant college," meaning that it was established by Act of Congress and by the North Carolina General Assembly as the Negro counterpart to the State's historically white land-grant college, NC State University. Among this institution's early purposes was to serve the needs of Negro farmers in the State. Thus, NC A&T State is not only the largest and among the oldest of North Carolina's HBUs, but also one with a specific historical mission tied to science and technology. Located in central Greensboro, NC A&T State is one of two UNC campuses in that City and currently enrolls more than 7,300 students, who are served by more than 1,800 faculty and staff.

NC A&T State is in many ways a remarkable institution. It has few peers among its generation of "1890s Negro land-grant colleges" and, indeed, among all HBUs in the US. It has achieved significant accomplishments, including delivery of doctoral level programs and graduation of the largest numbers of black engineers of any US HBU institution—all despite the fact that this institution demonstrably has among the worst quality facilities of all 16 UNC institutions.

Important facilities issues include the following:

- First, this institution's facilities, with a few exceptions, have major, pervasive problems of both basic condition and functional quality—to the point where annual R&R Reserve funding amounts have been wholly inadequate to restore and renew even portions of the campus buildings. In fact, based on the Study analysis, this campus has the absolute highest (worst) Facility Condition and Quality Index (FCQI) of all UNC institutions.
- Second, among the general condition/quality problems, NC A&T State has a special problem of obsolescence and disrepair in its core science laboratory buildings, which are among the worst in the entire State, and needs to replace essentially all basic science facilities.
- Third, NC A&T State has received federal funding as a land-grant university, but has not received state funding for this element of its mission. Despite creative efforts to use federal surplus and other means, the institution's agricultural properties and facilities are rudimentary, old, beyond repair, and entirely below acceptable standards. Some of the agricultural buildings still in use have been condemned.
- > Fourth, although the institution does not have capacity needs currently, its enrollment growth plan will result in capacity shortages that will occur in the latter part of the decade.
- Fifth, in addition to building problems, this campus has significant quality improvement needs for general campus development including everything from parking to landscaping.
- Finally, the campus has major infrastructure renewal and development needs, including basic utilities systems and wiring for technology.

The Institution

Founding Date: 1891

Founding Mission: Agricultural and Mechanical College

for Negroes

Carnegie Classification—1998: Masters Comprehensive University I

Degree Programs Offered: 48

HC Faculty and Staff—1998: 1,840

HC/FTE Students—1998: 7,354HC/6,777FTE

HC Student Target—2003: 8,840 # HC Student Target—2008: 10,600 % Enrollment Growth—1998-2008: 44.1%

The Campus and Facilities

GSF Buildings: 2.3 million GSF

Buildings: 108

Age of Campus: 11% built from 1900 to 1949

52% built during 1950s and 1960s

76% built prior to 1980

\$ CRV of Campus: Buildings: \$202.2 million

Infrastructure: \$88.2 million

Building Quality Needs

\$ FCAP Condition Deficiencies: \$46.6 million

Facility Condition Index ("FCI"): 0.16 (UNC average = 0.13)
Facility Condition/Quality Index ("FCQI"):0.61 (UNC average = 0.42)

\$ Modernization/Replacement Needs: \$238.8 million

Building Capacity Needs

Current Capacity Needs (Non-Housing): None

Capacity Needs (Non-Housing)—2003: 57,834 ASF (Cumulative)
Capacity Needs (Non-Housing)—2008: 221,290 ASF (Cumulative)

Student Housing Capacity Needs: 1,339 beds \$ Total Capacity Needs: \$41.5 million

Special Purpose Building Needs

\$ Special Purpose Building Needs: \$34.9 million

Other Campus Requirements

\$ General Campus Needs: \$10.4 million \$ Infrastructure Needs: \$32.2 million \$ Land Acquisition Needs: \$6.3 million

Capital Plan Summary

\$ Total Projects—Phase I (5 years) \$215.3 million \$ Total Projects—Phase II (5 years) \$148.8 million \$ Total 10-Year Capital Plan Needs: \$364.1 million

Proposed State Funding Summary

\$ State Funds Previously Committed:* \$9.0 million \$ Proposed State Funding—Phase 1: \$153.8 million \$ Committed and Proposed State Funding: \$162.8 million

Matrix of Financing Responsibility—Phase I

 State:
 \$162.8 million (75.6%)

 Self-Liquidating:
 \$33.1 million (15.4%)

 Private/Other:
 \$19.4 million (9%)

The state component of the above *Matrix* includes both new state funding and state funding previously committed.*

The following page provides NC A&T State's Plan Summary, including 10-year total needs and a summary of Phase I needs by needs category and proposed funding source. The full list of 10-year capital needs and a schedule of projects proposed for Phase I state funding are provided later in the document.

*As of December 1999, \$7.98 million of NC A&T State's previously committed state funding reverted to the State, to help provide available funds for hurricane relief. That amount would need to be added to the above proposed state funding, if not restored by other budgetary action.

10-Year Capital Plan Summary

NC A&T State University										
No.	state of Finance	ina Deeneneil		Capital Plar		of Dhasa I	Ctata Fund	ad Dualacta		
IVI	atrix of Financ	ing Responsi	bility and Pro	pposea Annu	iai Schedule	e of Phase I	State-Fund	ed Projects		
	Project Costs	& Commitments	Non-State	Eunding		State Fund	ling (Proposoc	I Annual Cash	Flow Moods)	
	\$ Estimated	\$ State	\$ Estimated	\$ Estimated		State Full	iiig (Froposec	Allitual Casil	Flow Needs)	
	Total Project	Amounts	Totals	Totals						\$ Totals
	Cost	Already	Self-Liq.	External						Proposed
	(includes 5%)	Committed*	Funding	Funding	Year 1	Year 2	Year 3	Year 4	Year 5	State Funding
I. BUILDINGS										
A. Modernization, Use										
Conversion, Replacement,										
and Demolition	152,486,205	9,000,000	18,779,100	3,878,813	19,329,848	24,683,583	25,659,501	35,953,720	15,201,640	120,828.292
B. Building Capacity	6,897,935		5,000,000		689,794	1,208,141				1,897,935
C. Special Purpose Buildings	31,239,000		7,629,000	15,000,000	703,500	3,165,750	3,165,750	157,500	1,417,500	8,610,000
Sub-Total—Building Needs	190,623,140	9,000,000	31,408,100	18,878,813	20,723,142	29,057,474	28,825,251	36,111,220	16,619,140	131,336,227
II. OTHER CAMPUS REQUIR	EMENTS									
A. General Campus	5,225,735		1,700,000	500,000		472,574	1,276,581	1,276,580		3,025,735
B. Infrastructure	13,151,744				740,258	1,285,996	1,926,494	4,250,722	4,948,274	13,151,744
C. Land Acquisition	6,300,000				6,300,000					6,300,000
Sub-Total—Other Campus										
Requirements	24,677,479		1,700,000	500,000	7,040,258	1,758,570	3,203,075	5,527,302	4,948,274	22,477,479
Total Phase I	215,300,619	9,000,000*	33,108,100	19,378,813	27,763,400	30,816,044	32,028,326	41,638,522	21,567,414	153,813,706
Total Phase II	148,843,032									
Total 10-Year Plan Needs	364,143,651									

^{*}As of December 1999, \$7.98 million of NC A&T State's previously committed state funding reverted to the State, to help provide available funds for hurricane relief. That amount would need to be added to the above proposed state funding, if not restored by other budgetary action.

FACILITIES PROFILE

The Institution

NC A&T State is one of the Nation's few historic "1890 landgrant colleges."

The addition of master's programs in 1939 makes NC A&T State one of the early UNC institutions to offer graduate education. Doctoral programs were added in 1993.

NC A&T earns in excess of \$28 million in grants and contracts revenue annually, thus making it the fifth largest recipient of such revenues in North Carolina. History. Established in 1891 as Agricultural and Mechanical College for Negroes, the institution that eventually became NC A&T State University was one of several "1890 land-grant colleges," created by Act of Congress for southern states, as Negro counterparts to the land-grant colleges that were enacted by Congress in 1863. This institution was located temporarily in Raleigh, until it moved to Greensboro in 1893, where its campus is located in the downtown central area of this major North Carolina city with a population of 205,132. The University's 567-acre farm property is located a few miles away from the main campus, in a location near an interstate that recently has come to be seen as an important target for future economic development.

The institution's name was changed to Agricultural and Technical College of North Carolina in 1915. With the addition of master's programs in 1939, NC A&T State was among the earliest of UNC institutions to offer graduate education. The institution received the designation of a regional university in 1967 and became a constituent institution of The University of North Carolina in 1972.

Doctoral programs were added to NC A&T State's offerings in 1993. The University today serves the Piedmont region of North Carolina as a center for trade and business. It has a substantial international enrollment and is increasing in the diversity of students and constituents it serves.

Mission. NC A&T State's mission is rooted in its special land-grant history. Its initial purposes were to prepare young Negro men and women for employment in agriculture and industry and to serve needs of Negro farmers in a segregated society. Today, the University is serving an increasingly diverse population, including many international students, with some 15 percent of enrollment being from outside North Carolina. Approximately 87 percent of the 7,354 HC enrollment is undergraduate, with the other 13 percent enrolled in graduate programs. The institution is substantially residential, with about 37 percent of enrolled students residing in residence halls.

The University also is engaged increasingly in research programs in its areas of focus and excellence. NC A&T State expects to continue to focus on strengthening of program quality and will participate in the State's enrollment growth. It also seeks to become more closely connected with industry and its service constituents in the region.

Instruction. Today, the University offers baccalaureate, masters, and doctoral programs in arts and sciences, business, and engineering through its eight schools and colleges, including the Graduate School. With one of North Carolina's three public schools of Engineering and one of its two public colleges of Agriculture, this institution's special instructional focus, however, is in science and technology disciplines.

Research. Research programs are conducted primarily in engineering, transportation, and extension. NC A&T State earns in excess of \$28 million in grants and contracts revenue annually, thus making it the fifth

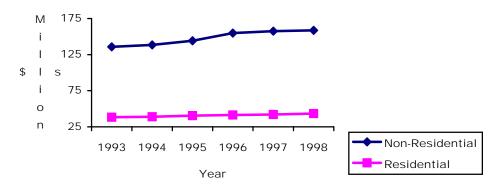
largest recipient of research revenues in North Carolina. Clearly, the E.B. Fort Interdisciplinary Research Center is the showpiece of the campus. Its attractiveness is matched by its functionality in that it houses critical space in the training of graduate students whose research is reflected in their teaching.

Campus/Facilities Today

The University's facilities comprise 108 buildings, with a CRV of \$202.2 million, plus infrastructure valued at \$88 million.

Size and Value. In 1998, NC A&T State had total GSF of 2,276,713 in all of its 108 buildings, with a current CRV, including both residential and non-residential facilities, of approximately \$202.2 million. The campus road, parking and utilities infrastructure represents an additional CRV estimated at more than \$88.1 million. Figure 1 shows that there was modest new investment in this campus's academic facilities during the 1990s, and virtually no new residential facilities investment since 1993.

Figure 1
Current Building Replacement Value Trend



The main campus encompasses 187 acres, and has problems of lack of continuity, which makes orderly facility development, circulation, and access very difficult.

The Campus and Master Plan. NC A&T State has nearly 760 acres of land in essentially three locations. The main campus encompasses 187 acres, the farm, several miles distant from the main campus, encompasses 567 acres, and there is a small four-acre parcel relatively close to the campus. The main campus is not entirely contiguous but, rather, is in two parts. A 10-year Master Plan developed in 1995 clearly depicts the main campus as surrounded by private property, fairly well built out with little room for expansion, in need of beautification, and with old and difficult to negotiate traffic patterns.

If NC A&T State is to expand to meet the needs of additional enrollments, it will be required to obtain some additional acreage. For this reason and also to permit orderly redevelopment and improvement of circulation and access, the University proposes to embark on a land acquisition program, eventually to acquire slightly more than 58 acres within and surrounding the campus, with a first-stage effort directed toward acquiring slightly more than 20 acres. The *Master Plan* addressed new construction and major reconstruction needs (of both academic and non-academic facilities), campus ingress and egress issues, campus beautification, parking, recreation, and a long-term program of land acquisition. The most important features were the conclusions that total new construction and reconstruction needs amount to 2,025,935 GSF, and

that early land acquisitions of just more than 20 acres within the campus's general boundaries, should occur quickly.

Space Type Distribution. As Figure 2 indicates, about 50 percent of the campus facility space is in academic space categories and of this, about 17 percent is laboratory space. Both of these percentages are relatively higher than at other UNC institutions. General and special use facilities comprise another 23 percent and include such facilities as Williams Cafeteria. Residential facilities make up only about 22 percent of campus space. This is somewhat less than typical for UNC campuses.

Distribution of Space by HEGIS Room Use Code 000-Unclassified 100-Classroom 900-Residential 3% 7% 200-Labs 22% 17% 700-Support 2% 600-General 300-Offices 18% Use 500-Special 11% 400-Study Use 12% 8%

Figure 2

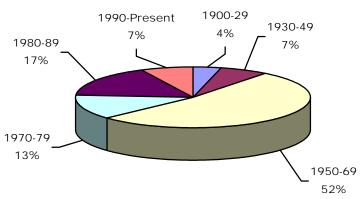
Building Condition and Quality Needs

About 63 percent of total campus facilities space is more than 30 years old. Some of the oldest buildings were built to modest standards at the outset.

Building Age. With the advantage of being a University with a long and proud history come the problems concomitant with aging facilities. As Figure 3 shows, 63 percent of campus facilities are more than 30 years old and a total of 76 percent of facilities are more than 20 years old. And, of this, a full half (52 percent) of all facilities were built in the high-growth decades of the 1950s and 1960s. Only about 24 percent of NC A&T State's space has been built since 1980.

The overall aging of the University's facilities is clearly and quickly compromising their usefulness and outstripping the University's capacity to repair them at a reasonable cost. In addition, as the Capital Equity/Adequacy Study revealed, age of facilities carries special implications for North Carolina's HBUs. For this institution, a large proportion of its facilities were built in the pre-desegregation era, when it may not have been a social priority to fund facilities at black institutions to the same level of expectations (and costs) as at HWU campuses. Thus the problem of aging is compounded by the fact that some of the oldest of the facilities were built to modest standards in the first instance.

Figure 3
Age of Campus Buildings



Resource limitations have severely constrained NC A&T State's ability to provide a comprehensive facilities management program.

Comparative data indicate that NC A&T State's operating budget resources being applied to maintenance and repair of its capital assets are at the lowest level of any UNC institution.

Facilities Operations and Maintenance. Resource limitations have severely constrained NC A&T State's ability to provide a comprehensive facilities management program. There is an automated work order system and a systematic program of filter changes and preventive maintenance for HVAC systems. However, the University has been unable to establish a comprehensive and systematic preventive maintenance (PM) program applicable to most other elements of university facilities. Lack of funds also has made a true Work Order Priority Response System inoperable because emergencies, urgent work, and preventive maintenance in HVAC and elevators consume almost all available funds.

The campus has been able to begin development of a system of automated deferred maintenance data. In addition to FCAP inspections by the State Construction Office, facilities management staff has been able to make some condition studies, and also to incorporate data on maintenance and repair needs from the automated work order system. Engineering students also are used to develop more detailed estimates of facilities needs, a creative use of appropriately trained student assistance.

About two-thirds of the entire facility operating budget of approximately \$9 million is consumed by salaries and utilities, leaving only about \$3 million for all other needs. On a campus with more than 2.3 million square feet of space, most of which is more than 30 years old, the remaining balance of available funds can serve only to confront the most critical needs. The lack of available resources to support ongoing maintenance is reflected by the overall FCI for the campus, one of the three highest for any UNC institution, and the highest FCQI value of all 16 UNC institutions.

Based upon a comparative evaluation of facilities maintenance and repair resources at UNC institutions, NC A&T State's operating budget resources being applied to maintenance and repair of its capital assets are at the lowest level of any UNC institution. Expenditures for maintenance and repair of appropriated facilities and infrastructure during 1997-1998 represented only 0.6 percent of CRV. This is only a little more than one-third the 1.5 percent of CRV generally considered to be the minimum level required to assure that no deferred maintenance accumulates, and it is only half the 1.2 percent average level for all UNC institutions. NC A&T

Fifty-two percent of total **FCAP** condition deficiencies were identified as ones that required immediate correction or correction within one year. Among the more significant items identified are \$28.4 million for the central cooling system and \$10.5 million for the heating system.

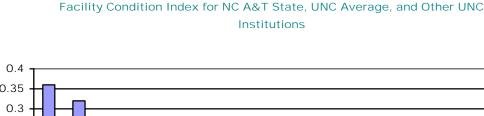
State's reported appropriated staffing for facilities operations and maintenance equates to 0.55 staff per million dollars of CRV. This is slightly above the average for all UNC institutions of 0.48 staff per million dollars.

Condition Deficiencies, FCAP, and FCI. The most recent FCAP survey reported an estimated total of \$46.6 million in condition deficiencies through the year 1998. This estimate includes \$23.0 million remaining from deficiencies identified originally in 1994. The total from the "immediate" and "first year" costs from the 1997 survey is \$24.0 million. Fifty-two percent of total FCAP deficiencies on campus were identified as ones that require immediate correction or correction within one year.

Infrastructure is a major element in the University's condition problems. Among the more significant items identified are \$28.4 million for the central cooling system and \$10.5 million for the heating system.

Based on CRV of \$290,339,017 (including infrastructure), the current FCI for NC A&T State's total facilities is 0.16, which is well above (worse than) the UNC systemwide average of 0.13, as Figure 4 shows. Another way to state this is that approximately 16 percent of the value of the campus facilities must be spent to recover their full usefulness. Overall, based on this measure, NC A&T State's facilities are in thirdworst basic condition of the 16 UNC institutions.

In addition, the underlying breakdown of condition deficiencies by appropriated buildings and non-appropriated buildings reveals a stark difference. The FCI is 0.10 for appropriated facilities and 0.47 for nonappropriated facilities. This indicates that, while academic facilities are being maintained in slightly better than average condition, this campus's dormitories and student service facilities (those typically fee-supported) are in drastically deteriorated condition.



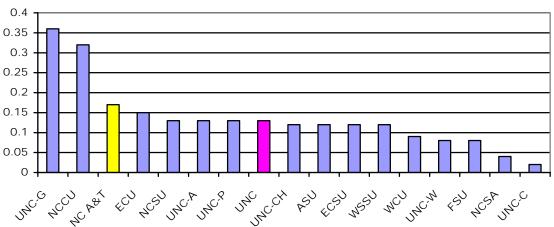


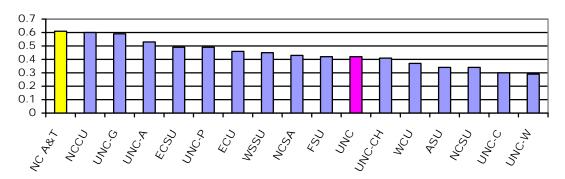
Figure 4

NC A&T State has the dubious distinction of having the absolutely highest (worst) FCQI (quality index) score of all 16 UNC institutions.

Quality Deficiencies. The EKA/VFA Quality Evaluation, conducted for the Capital Equity/Adequacy Study, revealed a total of \$238.8 million in requirements for modernization or replacement of core academic and student facilities on the NC A&T State campus.

A large portion of this is in the University's basic science lab facilities, general classroom space, and student residential facilities. As Figure 5, following, shows, at an FCQI of 0.61, this UNC institution has the absolutely highest FCQI of all 16 UNC institutions, although NC Central at 0.60 and UNC-Greensboro at 0.59 are essentially in very nearly the same position of qualitative deficit.

Figure 5
Facility Condition and Quality Index for NC A&T State, UNC Average, and All UNC Institutions



One example of a specific qualitative problem of aging campuses like NC A&T State's is HVAC systems; both heating and cooling are problems. For example, of all campus facilities, only 42 percent are air conditioned and only 37 percent of the academic buildings are air conditioned. This makes use of the campus in spring/summer sessions difficult. In addition, air conditioning that does exist is provided by window air conditioners and other archaic systems that require costly expenditures for utilities, maintenance and replacement. In some cases, like Hines Hall, chemistry laboratories have window air conditioners and retrofitted table-top fume hoods, but the electrical capacity of the building is inadequate to permit use of both the A/C and fume hoods at the same time.

Building Capacity Needs

Although this campus has a computed extra capacity of 86,442 ASF, this variance does not express the lack of quality or usability of much of the space, an important consideration for an aging campus focused on a science and technology mission.

Current Capacity. On a quantitative basis, space necessary to meet current mission offerings for education, training, and regional cultural activities is adequate, with an overall current surplus of nearly 87,000 ASF based on UNC space guidelines. The new School of Technology has added 61,000 ASF of capacity. By type of space, the most noticeable current surplus is in classroom space, with some in office and library/study categories. However, within the total net surplus, there are underlying deficits of class and open lab space, amounting to about 28,000 ASF, in engineering and physical sciences. These should be addressed, as condition/quality defects lead to replacement of science facilities. More minor space shortages (of about 11,000 ASF) also exist in student support areas.

Overall, the 10-Year Capital Plan includes demolitions, replacements, and changes of use that will improve the distribution of space types—as well as accomplish overall modernization.

In the case of NC A&T State, the current apparent excess capacity is largely offset by the extreme condition/quality problems. It is even possible that the problems with laboratory space and residence halls are understated. This campus's 10-Year Capital Plan incorporates several demolitions, changes of use, replacements, and other measures to ensure that, by the end of the decade, there will be a better distribution of space, as well as a material improvement in space quality.

Enrollment Growth and Future Capacity. University enrollment increased steadily from 1987 to 1994 and has declined since 1994 to 1992 levels. Figure 6 shows the recent HC and FTE trends and the planned enrollment target of 8,840 through 2003 and 10,600 by 2008, representing a significant growth target of about 44.14 percent.

If NC A&T State participates, as it is expected to, in overall statewide enrollment growth, then its facilities—academic and non-academic, buildings and infrastructure— first must be reconstructed or replaced, and then augmented.

There is a reasonable probability that enrollment declines during the latter half of the 1990s are at least partially attributable to the poor condition of facilities on this campus. Therefore, initially, substantial qualitative deficiencies must be addressed, before (and if) enrollment growth) will occur. These are quality/condition deficiencies in critical areas—science laboratories, classrooms, student support, residence halls, and campus-wide infrastructure—as well as other deficiencies in parking, recreation, and student life. Given what NC A&T State has been able to achieve with its existing poor facilities, there is reason to believe that investment in correction of the qualitative problems of this campus will make it more competitive and enable it to achieve both growth and growth in diversity.

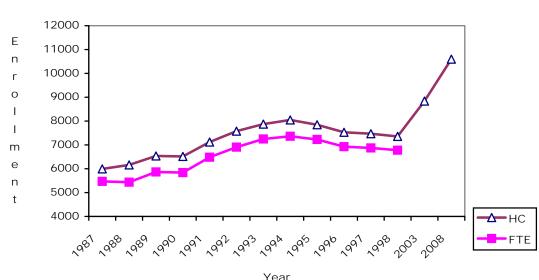


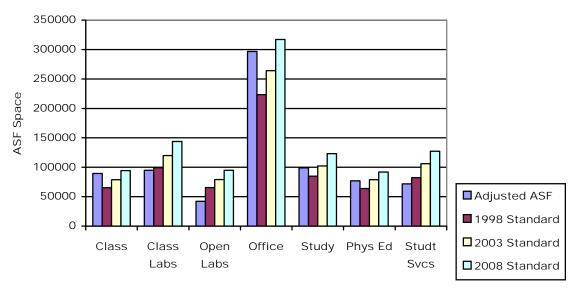
Figure 6

10-Year HC and FTE Enrollment Trend and Projections to 2008

If no new facilities are added, the existing space surplus will become a space deficit of approximately 58,000 ASF by 2003 and 221,000 ASF by 2008.

Based on these enrollment targets, if no new facilities are added, the existing space surplus will become a deficiency of approximately 57,834 ASF by 2003 and 221,290 ASF by 2008. Figure 7 shows current, actual "adjusted ASF" versus the ASF that UNC space guidelines project are needed for 1998, 2003, and 2008. By 2008, NC A&T State will experience space deficiencies in all space categories.

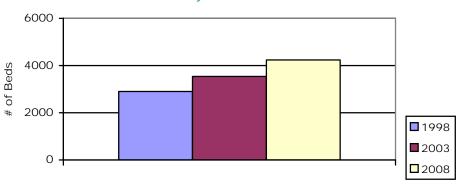
Figure 7
Space Needs By HEGIS Room Use Code



Just to maintain the current percentage of residential students, NC A&T State may need to build more than 1,339 student beds.

Residential Capacity. In addition, the University intends to maintain its current mix of residential versus commuter students. Therefore, enrollment growth will require NC A&T State to expand the number of beds available for on-campus residential students, from 2,901 today, to as many as 4,240 by 2008. This increase of nearly 1,339 beds alone will require significant new construction.

Figure 8
Current and Projected Residential Beds



The University's capacity-related needs in Phase I consist of graduate student housing, for \$6.9 million. For Phase II, capacity-related needs amount to about \$34.6 million, including addition of 55,000 ASF of student services space, 24,000 ASF of library/study space, and two additional residence halls, with 300 beds each.

Special Purpose Buildings Needs

In addition to condition/quality and capacity-related requirements, NC A&T State has Phase I requirements of about \$35 million to accommodate special needs and programmatic changes. This includes the third phase of the University's Research Facility project which NC A&T State plans to fund entirely from research overhead receipts, private gifts, and federal grants; a new Fitness/Wellness Center that the University will fund as a self-liquidating project; and two projects proposed for state funding. These are a new Student Recreation Center and a Hazardous Materials and Waste Storage facility. In the second phase of the University's capital plan, new special purpose projects identified include a new student health center and a police administration building, totaling to about \$3.7 million.

General Campus Needs

NC A&T State's 10-year needs in this category amount to \$10.4 million and include the first phase of a parking expansion of \$4.7 million in the first five years. In addition, major improvements are required for the pedestrian circulation system, including improvements to widen walkways and provide a lane for bicycles.

Finally, the campus has minimal landscaping in many locations. In addition to being a problem of esthetics, lack of planted material also leads to sinking ground that collects and pools water, and is unsightly. In some cases, limited landscape planting results in building flooding. Near Cherry and Graham Halls, for example, pooling water and flooding results in the need to cancel classes when it rains heavily.

Infrastructure Needs

The 10-year needs for infrastructure improvements have been identified at \$32.2 million, including major improvements to the central cooling system and the heating system, as well as wiring for technology.

Land Acquisition Needs

NC A&T State's Phase I plan includes the purchase of 20.69 acres of land which currently are encompassed by, or immediately adjacent to, the main campus. This land acquisition is critical to eliminating lack of contiguity and circulation problems, and was included as a recommendation in the University's *Master Plan*. The total estimated cost of this land acquisition is \$6.3 million.

10-Year Capital Needs

The entire compilation of 10-year capital needs of NC A&T State, as identified in the *Capital Equity/Adequacy Study*, total to \$364.1 million. A detailed list of capital needs is provided later in this document.

Matrix of Financing Responsibility—Phase I

NC A&T State has significant potential to become a more appealing choice for greater numbers of students...An augmentation of fees for well-selected purposes may be an important strategy for achieving both quality improvement and growth.

NC A&T State's student fees currently total \$907, just \$10 higher than the UNC average of \$897. Total general fees, at \$746, are slightly below the UNC average, while the debt service fee, at \$161, is \$31 higher than the UNC average.

For this HBU campus, having fees that are about at the system average is fairly aggressive, given traditional beliefs about student abilities to pay these costs. On the other hand, NC A&T State has significant potential to become a more appealing choice for greater numbers of students, but seriously needs to improve campus facilities to do so. Therefore, an augmentation of student fees for well-selected purposes may, in the end, be an important positive strategy for achieving both quality improvement and growth.

This view also makes sense based on current debt burden. This campus has a relatively small self-liquidating debt outstanding amounting to \$11,732,000. About 82 percent of the amount outstanding was used for dormitory construction and reconstruction. The remainder was incurred for stadium, student union, and parking needs.

Debt per FTE student currently is \$1,731, which is substantially lower than the systemwide average of \$4,032 and the Masters/Comprehensive University I average of \$2,839. Based on this comparison, NC A&T State should have some debt capacity that it can use in the 10-Year Capital Plan period, to accomplish some of its facility improvements. Accordingly, its financing plan calls for about \$33 million in self-liquidating projects during Phase I, including student housing, a cafeteria renovation, parking, and a fitness/wellness center.

As part of the HBU and Small Institutions recommendations that arose from the *Capital Equity/Adequacy Study*, EKA has recommended that certain student facilities should receive state funding. These include one new residence hall, partial assistance with new graduate housing, and substantial modernization of several existing residence halls, as well as a student physical education/recreation facility. The justification for these recommendations is the fact that NC A&T State has such an accumulated deterioration problem with its aged student housing stock and such a paucity of appropriate, competitive student activities facilities that it cannot reasonably fund all these important needs from student fees in the short timeframe that would be required to achieve targeted enrollment growth. Some corrective state assistance now can make a major difference in the competitiveness of this campus that, in turn, helps the State absorb some existing academic capacity for growing enrollments.

Private fundraising and/or federal and local grant funds are proposed for a number of facilities, including for a portion of the new research facility, a portion of the planned improvements to the stadium, modernization of Reid Greenhouse and Carver Hall. Altogether, NC A&T State is proposing to seek more than \$19 million in external funding from private and other non-state sources. Its financing plan provides for the following *Matrix of Financing Responsibility*.

75.6%

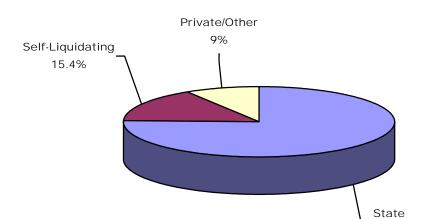


Figure 9
Matrix of Financing Responsibility

10-YEAR CAPITAL PLAN

Capital Needs—Phase I and II

NC A&T State University		
10-Year Capital Needs—Phases I and II		
List of Projects by Category, FCQIs, and Estimated Project	Cost	
List of Frojects by Category, Fowls, and Estimated Froject	COST	Est Total & Drainet
Decises Title and Drief Deceription	FCQI	Est. Total \$ Project
Project Title and Brief Description	rcui	Cost (incl. 5%)
PHASE I: Years 1-5	-	
I. BUILDINGS		
A. Modernization, Use Conversion, Replacement, & Demolition:		
Classroom/Office Space		
Bldg 111-Dudley Memorial Building. Comprehensive modernization. Phase III.	0.57	1,000,000
Bldg 632-Gibbs Hall. Comprehensive modernization.	0.31	2,797,047
Bldg 642-Charles H. Moore Building. Comprehensive modernization for gym only.	0.24	1,000,000
Subtotal Classroom/Office		4,797,047
Laboratories		
Chemistry Building. Replacement for and demolition of Hines Hall.		21,831,600
Bldg 20-Reid Greenhouse. Comprehensive modernization.	0.71	1,509,573
Bldg 6-Cherry Hall. Comprehensive modernization. Original project cost of \$8,613,152 has been reduced		
by application of R&R funds of \$175,000.	0.60	8,438,152
Bldg 5-Carver Hall. Comprehensive modernization, Phase I. This phase is anticipated to be funded from		
federal/local grants. Balance of modernization project of \$8,394,216 is in Phase II.	0.76	2,369,240
Bldg 1-Barnes Hall. Comprehensive modernization. Original project cost of \$6,097,128 has been reduced	0.74	F FF0 400
by application of R&R funds of \$547,000. Bldg 10-Graham Hall. Comprehensive modernization. Original project cost of \$5,899,838 has been	0.71	5,550,128
reduced by application of R&R funds of \$117,622.	0.68	5,782,216
General Classroom & Laboratory Building Complex #1. Replacement of classroom and laboratory space.	0.00	5,762,210
Includes planned reduction of 80,000 ASF of existing space via 5 demolition projects, and modernization		
of Merrick, Crosby, and Robeson		38,920,665
Bldg 13-Hodgin Hall. Demolition in connection with General Classroom/Laboratory Complex.	0.88	00,020,000
Subtotal Laboratories	1 0.00	84,401,575
Dormitory		0.,.0.,0.0
Bldg 119-Holland Hall. Comprehensive modernization. Phase 1 (historic campus building). Original	1	
project cost of \$4,407,375 has been reduced by application of R&R funds of \$230,900 and remainder of		
modernization is in Phase II.	1.51	856,801
Bldg 121-Morrison Hall. Comprehensive modernization (historic campus building).	1.22	3,701,101
New Residence Hall. Replacement for Bldg 27-Gamble Complex. 58 bed capacity.	1.53	1,552,043
New Residence Hall. Replacement for Bldg 110-Curtis Hall. 149 bed capacity.	1.27	3,723,510
New Residence hall. Replacement for Bldg 127-Scott Hall. 967 bed capacity.	1.14	26,253,322
Bldg 108-Cooper Hall. Comprehensive modernization (historic campus building). Original project cost of		
\$5,885,604 has been reduced by application of special R&R funds of \$3,449,323. Remainder of project		
funds move to Phase II.	1.00	650,000
Bldg 25-Alex Haley Dorm. Comprehensive modernization. Original project cost of \$3,400,903 has been		
reduced by application of special R&R funds of \$2,282,882. Remainder of project funds move to Phase II.	0.93	450,000
Bldg 26-Zoe Barbee Hall. Comprehensive modernization.	0.77	6,693,826
Subtotal Dormitory	 	43,880,603
Student Support Space	 	
Bldg 116-Harrison Auditorium. Comprehensive modernization (historic campus building). Original project	0.00	0.005 / 00
cost of \$3,193,196 has been reduced by application of R&R funds of \$298,000.	0.99	2,895,196
Bldg. 209-Williams Cafeteria. Complete modernization and addition (historic campus building).	1.19	8,579,100
Bldg 137-Student Union. Comprehensive modernization, excluding the addition currently under construction.	0.55	6 100 000
Subtotal Student Support	0.55	6,100,000 17,574,296
	+	17,574,290
Other Facilities People of Louising Para	+	040.405
Replace Lounging Barn Replace Poultry Complex Laying Houses	+	919,185 913,500
Subtotal Other Facilities	+ +	
	-	1,832,685
Sub-Total: Modernization, Use Conversion, Replacement, & Demolition:		152,486,205
B. Building Capacity :		
Graduate Student Housing		6,897,935
Sub-Total: Building Capacity		6,897,935

•		
10-Year Capital Needs—Phases I and II		
List of Projects by Category, FCQIs, and Estimated Project	Cost	
Project Title and Brief Description	FCQI	Est. Total \$ Project Cost (incl. 5%)
C. Special Purpose Projects:		
Research Facility Phase III. Includes I.R.C. and one additional facility		19,929,000
Student Recreation Center. Provides indoor running track, fitness/wellness training, aerobics, weight room, and climbing wall for students.		7,035,000
Fitness & Wellness Center/Stadium Complex. To provide locker/shower space and storage.		2,700,000
Hazardous Materials and Waste Storage Facility		1,575,000
Sub-Total: Special Purpose Projects:		31,239,000
Sub-Total: Buildings		190,623,140
II. OTHER CAMPUS REQUIREMENTS		
A. General Campus:		
Parking Enhancements, Phase I		4,725,735
Stadium Improvements, Phase I Lighting		500,000
Sub-Total: General Campus		5,225,735
B. Infrastructure:		
Central Cooling Plant, Phase 1. Provides North chiller loop. Total project cost is \$26,250,000		6,405,000
Electrical Distribution System Expansion. Install underground electrical service into campus land areas to be purchased.		697,552
Upgrade Electrical Distribution System. Adds capacity to meet additional A/C loads.		1,559,250
Replacement of Steam lines and Manholes		1,568,280
Technology Infrastructure Expansion		2,921,662
Sub-Total: Infrastructure		13,151,744
C. Land Acquisition:		
Land Purchase. Acquire 20.69 acres of land as proposed in the University Comprehensive Master Plan.		6,300,000
Sub-Total: Land Acquisition		6,300,000
Sub-Total: Other Campus Requirements		24,677,479
Sub-Total: Other Campus Requirements TOTAL PHASE I:		24,677,479 215,300,619
TOTAL PHASE I:		
TOTAL PHASE I: PHASE II: Years 6-10		
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS		
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition:		
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space	0.58	215,300,619
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization.	0.58	215,300,619 5,008,305
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space		215,300,619 5,008,305 3,353,822
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization.	0.97 0.65 0.54	5,008,305 3,353,822 2,266,882 1,210,930
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization.	0.97 0.65 0.54 0.57	5,008,305 3,353,822 2,266,882 1,210,930 679,689
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building)	0.97 0.65 0.54 0.57 0.52	5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization.	0.97 0.65 0.54 0.57	5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building)	0.97 0.65 0.54 0.57 0.52 0.33	5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 644-McNair Engineering. Comprehensive modernization. Bldg 21-Sockwell Hall. Comprehensive modernization.	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28	5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 644-McNair Engineering. Comprehensive modernization. Bldg 21-Sockwell Hall. Comprehensive modernization. Bldg 40-1020 Wendover. Comprehensive modernization.	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43	5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089
TOTAL PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 644-McNair Engineering. Comprehensive modernization. Bldg 21-Sockwell Hall. Comprehensive modernization. Bldg 40-1020 Wendover. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization.	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28	215,300,619 5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089 797,047
TOTAL PHASE II: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 9-Price Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 644-McNair Engineering. Comprehensive modernization. Bldg 21-Sockwell Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization.	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43	215,300,619 5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089 797,047
TOTAL PHASE II: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 614-McNair Engineering. Comprehensive modernization. Bldg 21-Sockwell Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Subtotal Classroom/Office Laboratories	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43 0.31	5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089 797,047 33,466,221
TOTAL PHASE II: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 634-Dudley Memorial Building. Comprehensive modernization. Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 644-McNair Engineering. Comprehensive modernization. Bldg 21-Sockwell Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Subtotal Classroom/Office Laboratories Bldg 122-Noble Hall. Comprehensive modernization (historic campus building) Bldg 633-Marteena Hall. Comprehensive modernization.	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43	5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089 797,047 33,466,221
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 644-McNair Engineering. Comprehensive modernization. Bldg 21-Sockwell Hall. Comprehensive modernization. Bldg 40-1020 Wendover. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Subtotal Classroom/Office Laboratories Bldg 122-Noble Hall. Comprehensive modernization (historic campus building) Bldg 633-Marteena Hall. Comprehensive modernization. Bldg 5-Carver Hall. Comprehensive modernization, Phase II. First phase was programmed for Phase I,	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43 0.31	5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089 797,047 33,466,221
TOTAL PHASE II: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 19-Price Hall. Annex. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 632-Sockwell Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Subtotal Classroom/Office Laboratories Bldg 122-Noble Hall. Comprehensive modernization (historic campus building) Bldg 633-Marteena Hall. Comprehensive modernization. Bldg 53-Marteena Hall. Comprehensive modernization. Bldg 53-Carver Hall. Comprehensive modernization, Phase II. First phase was programmed for Phase I, with federal/local grants totaling to \$2,369,240.	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43 0.31 0.64 0.40	215,300,619 5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089 797,047 33,466,221 3,273,390 6,537,686
TOTAL PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 644-McNair Engineering. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Bldg 632-Noble Hall. Comprehensive modernization. Bldg 633-Marteena Hall. Comprehensive modernization. Bldg 53-Carver Hall. Comprehensive modernization, Phase II. First phase was programmed for Phase I, with federal/local grants totaling to \$2,369,240. Subtotal Laboratories	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43 0.31 0.64 0.40	215,300,619 5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089 797,047 33,466,221 3,273,390 6,537,686
TOTAL PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 644-McNair Engineering. Comprehensive modernization. Bldg 6421-Sockwell Hall. Comprehensive modernization. Bldg 40-1020 Wendover. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Subtotal Classroom/Office Laboratories Bldg 122-Noble Hall. Comprehensive modernization. Bldg 5-Carver Hall. Comprehensive modernization. Pldg 5-Carver Hall. Comprehensive modernization. Bldg 5-Carver Hall. Comprehensive modernization. Pldg 5-Carver Hall. Comprehensive modernization. Bldg 5-Carver Hall. Comprehensive modernization. Bldg 5-Carver Hall. Comprehensive modernization. Bldg 5-Carver Hall. Comprehensive modernization. Pldg 5-Carver Hall. Comprehensive modernization.	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43 0.31 0.64 0.40 0.76	215,300,619 5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089 797,047 33,466,221 3,273,390 6,537,686 8,394,216 18,205,292
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 631-Sockwell Hall. Comprehensive modernization. Bldg 21-Sockwell Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Subtotal Classroom/Office Laboratories Bldg 122-Noble Hall. Comprehensive modernization. Bldg 633-Marteena Hall. Comprehensive modernization. Bldg 55-Carver Hall. Comprehensive modernization, Phase II. First phase was programmed for Phase I, with federal/local grants totaling to \$2,369,240. Subtotal Laboratories Dormitory Bldg 121-Morrison Hall. Comprehensive modernization (historic campus building)	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43 0.31 0.64 0.40	215,300,619 5,008,305 3,353,822 2,266,882 1,210,930 679,689 3,120,693 3,498,703 5,349,341 4,466,061 656,661 3,058,089 797,047 33,466,221 3,273,390 6,537,686 8,394,216 18,205,292 2,346,152
TOTAL PHASE I: PHASE II: Years 6-10 I. BUILDINGS A. Modernization, Use Conversion, Replacement, & Demolition: Classroom/Office Space Bldg 18-Price Hall. Comprehensive modernization. Bldg 8-Frazier Hall. Comprehensive modernization. Bldg 4-Campbell Hall-ROTC. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 19-Price Hall Annex. Comprehensive modernization. Bldg 111-Dudley Memorial Building. Comprehensive modernization. Bldg 205-Murphy Hall. Comprehensive modernization (historic building) Bldg 634-Dowdy Administration Bldg. Comprehensive modernization. Bldg 635-Webb Animal Science Bldg. Comprehensive modernization. Bldg 644-McNair Engineering. Comprehensive modernization. Bldg 640-1020 Wendover. Comprehensive modernization. Bldg 40-1020 Wendover. Comprehensive modernization. Bldg 632-Gibbs Hall. Comprehensive modernization. Subtotal Classroom/Office Laboratories Bldg 122-Noble Hall. Comprehensive modernization (historic campus building) Bldg 633-Marteena Hall. Comprehensive modernization. Bldg 5-Carver Hall. Comprehensive modernization, Phase II. First phase was programmed for Phase I, with federal/local grants totaling to \$2,369,240. Subtotal Laboratories Dormitory	0.97 0.65 0.54 0.57 0.52 0.33 0.37 0.21 0.28 0.43 0.31 0.64 0.40 0.76	
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NC A&T State University		
10-Year Capital Needs—Phases I and II		
List of Projects by Category, FCQIs, and Estimated Project	Cost	
Project Title and Brief Description	FCQI	Est. Total \$ Project Cost (incl. 5%)
Subtotal Dormitory		·
Student Support Space		
Bldg 631-Corbett Sport Center. Comprehensive modernization.	0.51	8,957,789
Bldg 201-Brown Hall. Comprehensive modernization.	0.51	2,010,555
Bldg 15-Moore Gymnasium. Comprehensive modernization.	0.73	6,889,785
Bldg 636-Stadium. Comprehensive modernization.	0.47	1,122,572
Subtotal Student Support		34,649,013
Sub-Total: Modernization, Use Conversion, Replacement, & Demolition:		86,320,527
B. Building Capacity:		
Student Services Space. Provides 55,500 ASF additional space required for enrollment growth (pending review of targeted enrollment).		12.077.026
Student Housing. Two 300-bed dormitories.		13,977,936 14,994,000
Library and Study Space. Provides 24,000 ASF additional space required for enrollment growth (pending	 	17,004,000
review of targeted enrollment)		5,632,305
Sub-Total: Building Capacity		34,604,241
C. Special Purpose Projects:		
New Student Medical Center. Replaces Sebastian Infirmary at a centralized location.		2,310,000
Police Administration Building. Accommodates campus security, university police administration, and		
support services.		1,429,050
Sub-Total: Special Purpose Projects		3,739,050
Sub-Total: Buildings		124,663,818
II. Other Campus Requirements		
A. General Campus:		
Bldg 2-Benbow Hall. Demolish to provide site for Student Services.	1.14	
Bldg 22-Ward Hall. Demolish to provide site for Student Services.	1.02	
Farm Roadway Expansion. Provides a 3/4 mile gravel road from Lee St. across farm to McConnell Rd.		210,000
Campus Landscaping Project		1,260,000
Improve Pedestrian Circulation System, Phase I. Widen walkways and add brick paving to improve pedestrian circulation system and provide lane for bicycles.		2,661,750
Pedestrian Mall. Establish a brick-paved pedestrian mall with fountain after the rerouting of Laurel Street.		1,030,746
Sub-Total: General Campus		5,162,496
B. Infrastructure:		4 470 222
Electrical Power System Upgrade. Replace transformers and underground wiring.		1,470,000
Central Cooling Plant. Provides North and South chiller loops. Phase 2 (Total project cost is 26,250,000) Technology Infrastructure ExpansionResidence Hall Share	 	13,125,000 2,455,068
Water Line Isolation. Install backflow and isolation valve		916,650
Steam Distribution System Replacement, Phase I. Replaces 35% of steam distribution system over a 10-		910,000
year period to provide adequate and reliable service to the campus.		1,050,000
Sub-Total: Infrastructure		19,016,718
C. Land Acquisition:		_
None		
Sub-Total: Land Acquisition		0
Sub-Total: Other Campus Requirements		24,179,214
TOTAL PHASE II		148,843,032
TOTAL DUACEL. DUACE II		204 442 054
TOTAL PHASE I + PHASE II		364,143,651

Proposed State Funding—Phase I (Years 1 to 5 only)

NC A&T State University Proposed State Funding Phase I (Years 1 to 5 only)							
	\$ State Funds Already	,	Van 2	Vaca 2	Voor 4	Voca F	Total
Project Title and Brief Description PHASE I: Years 1-5	Committed*	Year 1	Year 2	Year 3	Year 4	Year 5	Total
I. BUILDINGS							
A. Modernization, Use Conversion, Replacement, & Demolition:							
Classroom/Office Space							
Bldg 111-Dudley Memorial Building. Comprehensive modernization. Phase III.		100,000	900,000				1,000,000
Bldg 632-Gibbs Hall. Comprehensive modernization.		279,704	1,258,672	1,258,671			2,797,047
Bldg 642-Charles H. Moore Building. Comprehensive modernization for gym only.					100,000	900,000	1,000,000
Subtotal Classroom/Office	0	379,704	2,158,672	1,258,671	100,000	900,000	4,797,047
Laboratories							
Chemistry Building. Replacement for and demolition of Hines Hall.		2,183,160		9,824,220	9,824,220		21,831,600
Bldg 6-Cherry Hall. Comprehensive modernization. Original project cost of							
\$8,613,152 has been reduced by application of R&R funds of \$175,000.			861,315	3,788,419	3,788,418		8,438,152
Bldg 1-Barnes Hall. Comprehensive modernization. Original project cost of							
\$6,097,128 has been reduced by application of R&R funds of \$547,000.		609,713	2,470,208	2,470,207			5,550,128
Bldg 10-Graham Hall. Comprehensive modernization. Original project cost of							
\$5,899,838 has been reduced by application of R&R funds of \$117,622.			589,984	2,596,116	2,596,116		5,782,216
General Classroom & Laboratory Building Complex #1. Replacement of classroom and laboratory space. Includes planned reduction of 80,000 ASF of existing space							
via 5 demolition projects, and modernization of Merrick, Crosby, and Robeson	9,000,000	14,960,333	14,960,332				29,920,665
Bldg 13-Hodgin Hall. Demolition in connection with General Classroom/Laboratory	9,000,000	14,900,333	14,900,332				29,920,003
Complex.							
Subtotal Laboratories	9,000,000	17,753,206	18,881,839	18,678,962	16,208,754	0	71,522,761
Dormitory	3,000,000	17,733,200	10,001,033	10,070,302	10,200,734	•	71,322,701
Bldg 119-Holland Hall. Comprehensive modernization. Phase 1 (historic campus							
building). Original project cost of \$4,407,375 has been reduced by application of							
R&R funds of \$230,900 and remainder of modernization in Phase II.				85,680	771,121		856,801
Bldg 121-Morrison Hall. Comprehensive modernization (historic campus building).				370,110	1.665.496	1,665,495	3,701,101
New Residence Hall. Replacement for Bldg 27-Gamble Complex. 58 bed capacity.		155,204	698,420	698,419	, , , , , , , ,	,	1,552,043
New Residence Hall. Replacement for Bldg 110-Curtis Hall. 149 bed capacity.		372,351	, -	1,675,580	1,675,579		3,723,510
New Residence hall. Replacement for Bldg 127-Scott Hall. 967 bed capacity.			2,625,332		11,813,995	11,813,995	26,253,322
Bldg 26-Zoe Barbee Hall. Comprehensive modernization.		669,383		1,512,222	1,512,221		3,693,826
Subtotal Dormitory	0	1,196,938	3,323,752	4,342,011	17,438,412	13,479,490	39,780,603
Student Support Space			•		•		•
Bldg 116-Harrison Auditorium. Comprehensive modernization (historic campus							
building). Original project cost of \$3,193,196 has been reduced by application of							
R&R funds of \$298,000.			319,320	1,287,938	1,287,938		2,895,196
Subtotal Student Support	0	0	319,320	1,287,938	1,287,938	0	2,895,196

NC A&T State University Proposed State Funding							
Phase I (Years 1 to 5 only)							
	\$ State Funds Already						
Project Title and Brief Description	Committed*	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Other Facilities				04.040	207.000		040.405
Replace Lounging Barn Replace Poultry Complex Laying Houses				91,919	827,266 91,350	822,150	919,185 913,500
Subtotal Other Facilities	0	•	0	04 040		822,150 822,150	·
	U	0	U	91,919	918,616	022,130	1,832,685
Sub-Total: Modernization, Use Conversion, Replacement, & Demolition:	9,000,000	19,329,848	24,683,583	25,659,501	35,953,720	15,201,640	120,828,292
B. Building Capacity :							
Graduate Student Housing		689,794	1,208,141				1,897,935
Sub-Total: Building Capacity	0	689,794	1,208,141	0	0	0	1,897,935
ous rotal. Sulfalling Supusity		000,104	1,200,141	•			1,001,000
C. Special Purpose Projects:							
Student Recreation Center. Provides indoor running track, fitness/wellness training,							
aerobics, weight room, and climbing wall for students.		703,500	3,165,750	3,165,750			7,035,000
Hazardous Materials and Waste Storage Facility					157,500	1,417,500	1,575,000
Sub-Total: Special Purpose Projects:	0	703,500	3,165,750	3,165,750	157,500	1,417,500	8,610,000
0.1.7.4.1.0.7.1	0.000.000	00 700 440	00.057.474	00 005 054	00.444.000	40.040.440	404 000 007
Sub-Total: Buildings	9,000,000	20,723,142	29,057,474	28,825,251	36,111,220	16,619,140	131,336,227
II. OTHER CAMPUS REQUIREMENTS							
A. General Campus:							
Parking Enhancements, Phase I			472,574	1,276,581	1,276,580		3,025,735
Stadium Improvements, Phase I Lighting			•				
Sub-Total: General Campus		0	472,574	1,276,581	1,276,580	0	3,025,735
P. Infractive ture							
B. Infrastructure: Central Cooling Plant, Phase 1. Provides North chiller loop. Total project cost is	1						
\$26,250,000				640,500	2,882,250	2,882,250	6,405,000
Electrical Distribution System Expansion. Install underground electrical service into campus land areas to be purchased.						697,552	697,552
Upgrade Electrical Distribution System. Adds capacity to meet additional A/C loads.		155,925	701,663	701,662		,	1,559,250
Replacement of Steam lines and Manholes		,	,	,	784,140	784,140	1,568,280
Technology Infrastructure Expansion		584,333	584,333	584,332	584,332	584,332	2,921,662
Sub-Total: Infrastructure	0	740,258	1,285,996	1,926,494	4,250,722	4,948,274	13,151,744

	NC A&T State U Proposed State Phase I (Years 1	Funding					
Project Title and Brief Description	\$ State Funds Already Committed*	Year 1	Year 2	Year 3	Year 4	Year 5	Total
C. Land Acquisition:							
Land Purchase. Acquire 20.69 acres of land as proposed in the University Comprehensive Master Plan.		6,300,000					6,300,000
Sub-Total: Land Acquisition	0	6,300,000	0	0	0	0	6,300,000
Sub-Total: Other Campus Requirements		7,040,258	1,758,570	3,203,075	5,527,302	4,948,274	22,477,479
TOTAL PHASE I:	9,000,000*	27,763,400	30,816,044	32,028,326	41,638,522	21,567,414	153,813,706

^{*}As of December 1999, \$7.98 million of NC A&T State's previously committed state funding reverted to the State, to help provide available funds for hurricane relief. That amount would need to be added to the above proposed state funding, if not restored by other budgetary action.

CAMPUS VISIT AND TOUR

Interview Comments

We serve one-third of the 100 counties in North Carolina but we receive much less than one-third of the land grant funding in the State. And, that has been the case historically.

Diversity is the wave of the future.

We need to enhance our interface with the biotech industry in this State, but our facilities are not competitive. The following is a summary of interviews, with examples of comments. *Mission and Land-Grant Funding History.* There are common threads woven throughout interviewees' discussion of NC A&T State's mission and its ability to successfully accomplish its mission. One of those is founded in NC A&T State's lack of full participation in land-grant funding. It is asserted that state land-grant funds have not been channeled to NC A&T State and, therefore, its historic ability to serve black farmers and to excel in Agriculture have been hampered.

We serve one-third of the 100 counties in North Carolina but we receive much less than one-third of the land grant funding in the State. And, that has been the case historically.

Further, it is argued that the shortage of funds causes NC A&T State to lose opportunities for obtaining research grants and has caused the farm facilities to fall into a state of almost complete disrepair, to the point where they are not habitable by the farm animals.

The School of Agriculture works cooperatively with the School of Engineering, but it is difficult to partner with industry once they come on the campus and see the facilities.

Impediments to Achieving Mission Diversity. Also, interviewees feel that the University's ability to enlarge its role as an HBU that is growing into a modern university is compromised severely because its current facilities are in a poor state of repair and because it has longstanding facilities needs that must be addressed, if it is to compete with its peers and competitors.

- We have changed considerably, and have moved to Ph.D. programs, but we need better facilities if we set our sights bigger than (the historic role of) HBUs. Our attempts to deliver a superior science education experience to students are thwarted by placing them in outmoded or deteriorated labs or classrooms, by placing them in very old residence halls, and by providing little in the way of study or recreational facilities. Chancellor Fort noted: "There is a clear relationship between the mission of an institution and the utilization of its facilities."
- Diversity is the wave of the future. Achieving diversity at Michigan and at A&T are not the same undertaking. When we focus on white students, there are difficult adjustments for them to make. However, our faculty is 45 percent white while the student population is only seven percent white.

Facilities Issues. There were numerous comments that the condition of some campus facilities hinders the University's ability to fulfill its mission:

We need to enhance our interface with the biotech industry in this State, but we must use the same facilities for biology and chemistry and biotech. Our facilities are not competitive, but our students have to compete for the same jobs as the students from the other universities. It is not the case that, when our graduate education gets

Dormitories here are a major problem.

A major weakness is the infrastructure of the buildings, wiring, etc. The productivity of the faculty should not be punished. They should be able to work on getting grants, not on trying to get the basics for their buildings.

to where it should be, all people and all cultures will come because of the programs alone. The program quality is partly a function of the facility quality.

- We have a major deficit in student recreation activities (and facilities).
- Dormitories here are a major problem.
- Our farm buildings are old, rudimentary, and in a very poor state of repair.
- A major weakness is the infrastructure of the buildings, wiring, etc.
 The productivity of the faculty should not be punished. They should be able to work on getting grants, not on trying to get the basics for their buildings.
- In the business school, the acoustics are bad and the teacher has to shout. The desk space is old and faulty, and the classroom space is not equipped for data presentations. The fixed seating arrangements do not enhance our communication and group problem solving in the business curriculum.
- ➤ The admissions office is in the basement of the Animal Science Building.
- There are often long waits for access to current parking spaces. One of the proposed self-liquidating projects awaiting approval is a \$6,050,000 parking deck.

Interviewees also commented on the campus's infrastructure deficits. These problems include heating, cooling, power, and other systems.

- The power supply to the campus is only 55% used, but several buildings require monitoring because they are operated at peak power capacity.
- The natural gas powered steam system appears to be adequate, as are the sanitary and storm sewer systems, the telephone system and the natural gas service and piping systems.
- Using window air conditioners for cooling is wasteful of utilities expenditures, and maintenance costs.

Campus Tour—Building Examples

Academic Facilities



4th Floor and Atrium View, Fort Research Center

The Edward Fort Interdisciplinary Research Center, a four-story research facility with 21 specialized laboratories and space for graduate students, has begun to fulfill a longstanding need and aspiration of the institution to have dedicated space for its emerging research programs. This facility was built at a cost of \$11.5 million and funded from state and NSF money. It contains the Autonomous Control Research Center, the Center for Composite Materials Research, the NASA Center for Aerospace Research, and the Air Force Center for Waste Remediation and Transport. This facility is not yet entirely completed, but has begun to make an important difference in the University's ability to pursue research funding.



Modern research laboratory Fort Research Center



Typical office, Fort Research Center



Research library, Fort Research Center



Directory of research centers, Fort Research Center

Hines Hall was built in 1950 and an addition was added in 1960. This facility, which houses the chemistry department, is the opposite end of the facility continuum from the Fort Research Center. Hines Hall has become one of the "poster child" buildings of the Capital Equity/Adequacy Study, representing one of the most serious examples of unacceptable science facilities, of which there are several in the UNC system.

This building has HVAC and electrical issues, as well as problems with fume hood exhausts, inadequate chemical storage, lack of safety devices such as eye washes, lack of modern environmental chambers, and building odors that permeate the building. There is cold storage equipment that no longer functions and there are extremely old fume hoods.

In some of the *Hines Hall* labs, portable fume hoods have been installed, but the electrical system is unable to support both fume hoods and window air conditioning units. Only one at a time can be operating.



Very old fume hood, Hines Hall

includes a project for total replacement of *Hines Hall*.

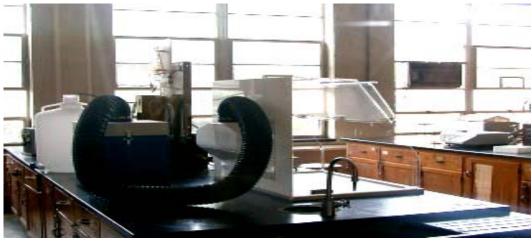


Chemistry Lab #3, Hines Hall Deteriorated windows and lab work stations



Chemistry Lab #2, Hines Hall

Hines Hall only has a single elevator that was designed for freight, but which also must be used by handicapped students. The 10-year capital plan



Window A/C unit and portable fume hood cannot be operated at the same time, Hines Hall

Graham Hall is a Works Progress Administration (WPA)-era structure, built in 1939. It is used today for Computer Science and Industrial Engineering. This building also houses the Machine Intelligence and Power Affiliated Research Laboratory, the Graduate Object Oriented Software Engineering Laboratory, the Manufacturing Automation Laboratory, the Human Performance Laboratory, and the Digital Systems Research and Development Laboratory. There is no elevator access, no air conditioning, and there is a problem with the capacity, quality and distribution of the electric power in the building.



Antiquated research lab in Graham Hall

Engineering departments use this building, the departments are Architectural Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial Engineering, and Mechanical Engineering. Research laboratories in this building are Indoor Air Quality Laboratory, Rockwell Solid State Research laboratory, Molecular Beam Epitaxy Laboratory, Aero-Structures Research Laboratories, and Photonics Research Laboratory.

This building has no handicap access; there is a problem with capacity, quality, and distribution of the electrical system; the windows and doors leak allowing penetration of water and air; there is asbestos throughout the building; and the air-conditioners are failing and cannot be replaced. The machine shop located in this building has maxed out its space. New equipment displaces equipment that then gets moved to the

hallway.
There is a
severe
shortage of
storage
space with
non-

combustible



Work area in hallway, Cherry Hall



Retrofitted upgrade of electrical system in Graham Hall

Cherry Hall was built in 1954 and houses the College of Engineering machine shop, undergraduate and graduate instructional laboratories and studios, and research laboratories. Six of the College of



Machine shop in Cherry Hall



Storage under stairs, Cherry Hall

materials being stored under stairwells. The building has a severe harmonics problem from the air handling system that interferes with the computer lab in the building.

Noble Hall was built in 1923 and houses the School of Nursing. The Building has had some renovations but is clearly showing its age. Renovations have focused on code and safety issues. Classrooms are being converted into offices, but that is a



Obsolete Nursing lab in Noble Hall



Landscaping Lab in Carver Hall is one of the relatively better-functioning lab spaces in this building.

stop gap measure. Part-time faculty do not have offices and permanent faculty often share office space.

Carver Hall was

built in the 1955 and houses the Architecture, Home Economics,

Plant Science, and Agriculture, Education, and Economics departments. The South building has been renovated with federal money and has airconditioning and new lighting. The North building is not air-conditioned and the electrical system does not



View of Carver Hall from the Stadium side. This building is typical of the many 1950s structures with windows and facades that are failing and inadequate HVAC, electrical, and other systems.

permit the use of window air conditioners and the lighting is very dim. The North building heating controls are not operational

and the adjacent greenhouse is in a poor state of repair. Carver Hall is perhaps a typical example of the many buildings on UNC campuses that were built in the 1950s or 1960s and which today are functionally obsolete, with facades and windows failing, and with inadequate HVAC, electrical, and other systems.



KPMG Computer Lab, Merrick Hall

Merrick Hall was built in 1968 and has had no major renovation work. Some areas have been renovated with the use of external funds. There are roof leaks and structural damage to the building. The windows were replaced but some were

installed backwards which causes water penetration during rain storms. In addition, the exterior of the building needs to

be sealed to prevent moisture penetration, which is causing damage to equipment inside the building. The lab shown here was renovated with funding from KPMG.



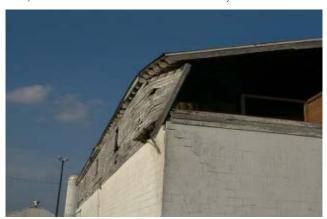
Water damage to wall from moisture penetration, Merrick Hall



Sinking floor in Crosby Hall

At the time of the campus tour, *The Oaks* was still the Chancellor's Residence. This home was built in 1949 and with just 1,700 ASF, was much too small to be used as an official residence as it could not accommodate faculty-student or donor events. During the last year, NC A&T State has acquired a replacement chancellor's residence more suitable to the function, but the duration of *The Oaks* for as long as it served this purpose is an example of many of the longstanding facility inadequacies of this campus.

The *Farm Buildings* (including Carver Hall, the Milking Barn, the Lounging Barn and Ward Hall) are in an advanced state of decay. Other



Damaged roof on the Dairy barn



Hurricane-damaged shed at the Farm

Crosby Hall was built in 1970 and has not been renovated. The building houses English, Foreign languages, Speech Communications, and the Theatre Arts departments. The building has 22 classrooms, a television studio, set construction studio, faculty offices, a radio laboratory, two computer laboratories, a theatre studio, and a 370 seat theatre adjacent to the building. In order to maintain accreditation for the Theatre Program (accredited by NAST), it will be necessary to install showers backstage and upgrade the lighting system for the theatre. The building is built over a spring and was not properly prepped for drainage. As a result, the floor is sinking in several areas of the building.



The Oaks, very recently replaced Chancellor's Residence

buildings, such as the Bull Barn, require renovation. Most farm buildings require extensive roof repairs.



Ward Hall Dairy Processing--unused for 12 years, is representative of the general state of NC A&T State's agriculture facilities.

Student Support Facilities

Moore Gym was built in 1953 and no longer meets current needs. It is not air-conditioned and needs major lighting changes. The old pool is being converted to a dance studio and a weight room. The building has an overpowering odor that is always present, due to moisture problems. Historically, any



Crumbling stairway in Moore Gym

Locker room damage beyond repair in Moore Gym

renovations that have been done in this building have been funded with Title III funds. This is one of the major student services facilities that must be replaced. The IO-year capital plan includes projects for recreation and physical education.

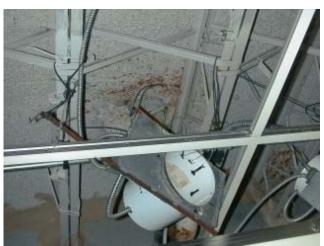
Six of the University's residence halls are in extremely poor condition. An example of the six, *Scott Hall*, is a large dormitory with no air conditioning, and presents a very grim appearance. Moisture damage is visible throughout the building. There are gang toilets and there is no cogent decorating scheme throughout. NC A&T State spends considerable amounts of money annually to continue to maintain this building with minor repairs. It needs an entire modernization.



Typical aging room furniture in Scott Hall



Scott Residence Hall



Ceiling damage in bathroom from shower pan leak in bathroom above, Scott Hall

DATA EXHIBITS

History

1890-1891	formally created the college
1891	Established as the Agricultural and Mechanical College for Negroes, by the General Assembly of North Carolina, March 9, 1891
1891-1893	Operated as an annex to Shaw University in Raleigh
1893	First building completed in Greensboro
1915	Name of the institution was changed to Agricultural and Technical College of North Carolina
1939	General Assembly authorized granting of Master of Science Degree in Education
1957	General Assembly establishes the primary purpose of the College to teach Agricultural and Technical Arts and Sciences and to train public school teachers and administrators. The North Carolina Board of Education granted authority to approve additional professional and occupational programs
1967	College is elevated to the status of a Regional University
1972	North Carolina Agricultural and Technical State University became a constituent institution of the University of North Carolina

Mission

Carnegie Classification

Public Master's (Comprehensive) University I

Mission Statement

"North Carolina Agricultural and Technical State University is a public, comprehensive, land-grant University committed to fulfilling its fundamental purposes through exemplary undergraduate and graduate instruction, scholarly and creative research, and effective public service. The university offers degree programs at the baccalaureate, master's and doctoral levels with emphasis on engineering, science, technology, literature and other academic areas. As one of North Carolina's three engineering colleges, the university offers Ph.D. programs in engineering. Basic and applied research is conducted by faculty in university centers of excellence, in inter-institutional relationships, and through significant involvement with several public and private agencies. The university also conducts major research through engineering, transportation, and its extension programs in agriculture."

Facility Users

Students

Exhibit I							
Headcount and FTE Enrollments: Fall 1998							
Undergraduate Graduate Total							
Full-Time Headcount	5,686	421	6,107				
Part-Time Headcount	681	566	1,247				
Total Headcount	6,367	987	7,354				
FTEs	6,007	770	6,777				
Residential Students			2,748				
Other			169				
Commuters			4,437				
Sources: Tables 2A, 4, and 83	, Statistical Abstract of Higher	Education in North Carol	ina, Fall 1998				

Faculty and Staff

University Employees by IPEDS-S Categories: Fall 1998						
Category	Permanent FTEs	Temporary FTEs	Total FTEs			
Administrative	67	5	72			
Instructional	473	172	645			
Professional	190	9	199			
Technical	46		46			
Clerical	314		314			
Skilled Crafts	67		67			
Service	I44		I 44			
Graduate Assistants	170		170			
Student Employees		183	183			
Totals—Employees	I,47I	369	1,840			

Land

Exhibit 3 Land Assets—Developed and Developable					
Campus/Property	Main Campus	Farm			
Description	# Acres	# Acres			
Developed land area	186	567			
Undeveloped, but developable land area	5				
Total—Land Area	191	567			
Source: EKA Institutional Data Ques	stionnaire.				

Infrastructure

Roads and Parking

Exhibit 4						
Amount and Dollar Value of CRV of Roads and Parking						
Category	Units of Measure	\$ CRV				
Roads and Streets:						
Total miles	3 miles (approximately)	\$1,700,000				
Parking:						
Parking decks spaces	None					
Paved surface spaces	2,888	\$6,593,304				
Unpaved surface spaces	715	\$668,000				
Total Parking Spaces	3,603	\$7,261,304				
Number of FTE Students &						
Employees per Parking Space	2.21					
Total \$ CRV-Roads & Parking		16,222,608				
Source: EKA Institutional Data Questionnais	re.					

Utilities

Exhibit 5	
Utilities Infrastructure Overview and \$ Value of CRV	
Utilities Component	\$ CRV
Electric Power System:	
Duke Power Company supplies electrical services to 42 separate accounts. The main	
account, with over 90% of the volume, is the campus-owned substation. The	
substation is maintained by campus personnel and is operating at 55% capacity,	
although several buildings are at peak capacity.	\$4,500,000
Heating System:	
Natural gas is the primary fuel for the central heating plant which distributes steam	
for hot water and space throughout the campus through 2.5 miles of piping. The	
standby fuel is No. 2 fuel oil.	\$10,500,000
Central Cooling Systems:	
Most of the facilities have individual chillers, cooling towers and individual window	
units.	\$28,406,000
Water Supply Systems:	
Water service is provided by the City of Greensboro, through two loops, each of	
which is separately metered. There is no central campus storage capacity.	\$11,750,000
Sewer Systems:	
The City of Greensboro provides sanitary ad storm water removal. NC A&T	
maintains all drain systems on campus, and the City provides maintenance for that	
part within the city.	\$6,825,000
Telephone:	
The telephone system is a digital key system provided by Bell South and is connected	
to Centrex telephone lines. The receivers meet ADA requirements.	\$900,000
Other Utilities:	
The central heating plant uses over 90% of the natural gas that is supplied by	
Piedmont Natural Gas Company. Piedmont owns and maintains the gas	
distribution system and the meters while NC A&T owns and maintains the campus	
piping system	\$120,000
Total \$ CRV—Utilities Infrastructure	\$71,962,264
Source: EKA Institutional Data Questionnaire.	

The total CRV for campus infrastructure, including roads, parking, and utilities, is \$88,184,872.

Buildings

Exhibit 6 Number of Buildings, GSF, ASF, and CRV as of Fall 1998								
	Non-Residential Residential Totals							
# of Buildings	88	20	108					
GSF	1,727,468	549,245	2,276,713					
NASF 1,586,5								
CRV	158,682,434	43,471,475	202,153,909					
Source: Tables 19 & 20, Facilities Inventory and Utilization Study. 1998								

FCAP Condition Deficiencies

Recent Summary

Exhibit 7							
Dollar Cost	of Deficiencies by Recommended Year of Corrections 1994 Deficiencies						
	1997 Deficiencies	(remaining)	Totals				
Immediate Cost	4,008,810	,	4,008,810				
I-Year Cost	8,039,419	11,953,912	19,993,331				
2-Year Cost	8,816,300	5,700,841	14,517,141				
3 Year Cost	2,314,508	3,624,846	5,939,354				
4-Year Cost	325,928	1,670,688	1,996,616				
5-Year Cost	20,960	127,383	148,343				
Totals—Deficiencies	23,525,925	23,077,670	46,603,595				
Source: FCAP Dollar Totals 1998 cycle data	by Campus, Year and Priority	, NC Commission on Higher Educ	ation Facilities,				

Facility Condition Index

Exhibit 8							
Facility Condition Index (FCI) by Appropriated and Non-Appropriated Facilities							
CRV Including Facility Condition							
Facility Category	\$ FCAP Deficiencies	Infrastructure	Index (FCI)				
Appropriated	21,709,483	236,973,832	0.10				
Non-Appropriated	24,894,112	53,364,949	0.47				
Totals—FCAP, CRV & FCI	46,603,595	290,339,017	0.16				
Source: FCAP Dollar Totals by Campus, Year and Priority, NC Commission on Higher Education Facilities, 1998 cycle data							

Facilities Operations Resources

Expenditures for Operations, Maintenance and Repairs

Exhibit 9 Operating Expenditures by Academic and Auxiliary Facilities								
	Academic	Auxiliary	Academic	Auxiliary	Academic	Auxiliary		
Administration	\$2,383,844	\$ 107, 460	\$1,767,045	\$ 107,460	\$2,006,048	\$ 119,206		
Grounds	593,370	143,417	567,301	133,297	630,105	155,047		
Housekeeping	1,430,932	469,028	1,498,401	575,623	1,540,251	552,451		
Maintenance & Repair—								
Facilities	1,179,334	340,807	1,515,116	382,822	1,385,015	339,954		
Preventive Maintenance								
Utilities	2,512,949	443,462	2,851,115	503,138	2,608,083	452,923		
Total Expenditures-O, M, & R	\$8,100,429	\$1,504,174	\$8,198,978	\$1,702,340	\$8,169,502	\$1,619,581		

Facilities Maintenance Staffing

Exhibit 7 Number and Ratio of Facilities Operations & Maintenance Staff							
Fiscal Year Total	Fiscal Year Total # of Employees Area Ratio						
	Academic	Auxiliary	Academic	Auxiliary	Academic	Auxiliary	
Housekeeping	64.5	5	1,551,231SF	55,929 SF	24,050 SF	10,585 SF	
Grounds Maintenance	23.0		125 acres		5 acres		
Maintenance & Repairs	33.0	5	2,304,352 SF	580,655SF	69,828 SF	116,133SF	
Total—Facilities Staff	120.5	10					
Source: EKA Institutional Data Questionnaire							

Current Bond Indebtedness

		Exhibit 11						
Current Self-Liquidating Project Indebtedness								
Facility	Bond Issue	Date of Issue	\$ Amount of Issue	\$ Outstanding Nov 1998	Scheduled Payoff Date			
Dormitory - Vanstory Hall	Dormitory System Revenue Bonds -Series B	07/01/64	\$412,000	\$ 125,000	07/04/04			
Dormitories-Barbee Hall, Alex Haley Hall	Dormitory System Revenue Bonds-Series C	01/01/65	2,040,000	125,000	07/01/98			
Memorial Student Union	Student Union Bonds	09/01/65	1,040,000	355,000	09/01/05			
Dormitories-Barbee, Haley, Morrison, Morrow, Scott, Vanstory Halls	Dormitory System Bonds	05/01/84	1,037,000	667,000	05/01/14			
Stadium System	Refunding Bonds, Series A	11/01/89	1,975,000	1,620,000	1/13/13			
Dormitory System	Dormitory System Revenue Bonds, Series D	09/16/91	3,000,000	2,750,000	07/01/20			
Dormitory System	Dormitory System Revenue Bonds, Series E	12/09/92	5,660,000	4,625,000	07/01/08			
Parking	UNC System Pool Revenue Bonds	11/01/98	1,465,000	1,465,000				
Total—Current Debt				\$11,732,000				
Current Debt/FTE				1,731				
Masters I Avg Debt/FTE				2,839				
UNC Avg Debt/FTE				4,032				
UNC Avg Debt/FTE	ninistration with additional info	rmation supplied	by the institution	·				

Current Student Fees

Exhibit 12							
Current Approved Student Fees: 1999-2000							
	Over						
	Approved	UNC	(Under)				
Fee Type	Fees	Average	Average				
Athletic	283	239	44				
Health Services	155	159	(4)				
Student Activities	188	271	(83)				
Educational & Technology	120	121	(1)				
Total General Fees	746	775	(29)				
Debt Service Fee	161	130	3 I				
Total Student Fees	907	897	10				
Source: UNC General Administration							

ERRATA FOR NC A&T STATE UNIVERSITY FACILITIES PROFILE

Page ii, under "Other Campus Requirements," on the line "\$ General Campus Needs," the number \$11.4 million should be \$10.4 million.

The attached page iii replaces page iii, to correct various numbers throughout the page.

The attached page iv replaces page iv to reflect changes in totals caused by removal of a project.

Page 9, in the section "General Campus Needs," the number \$11.4 million should be \$10.4 million. In the section "10-Year Capital Needs," the number \$365.1 million should be \$364.1 million.

Page 11, the 75.7% for "State" should be 75.6%, and the 15.3% for "Self-Liquidating" should be 15.4%.

The attached page 13 replaces page 13 to reflect changes in totals caused by removal of a project.

Page 14, on the line "Total Phase I + Phase II," the number \$365,143,651 should be \$364,143,651.

Page 16, under "II. Other Campus Requirements, A. General Campus," delete the line for "Security Lighting." On the line "Sub-Total: General Campus," under the column "\$ State Funds Already Committed," the number 1,000,000 should be 0.

Page 17, under the column "\$ State Funds Already Committed," on the lines "Sub-Total: Other Campus Requirements" and "Total Phase I," the number 1,000,000 should be 0.